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PATENT

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Date: 7-26-04

Himanshu S. Amin

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Applicant(s): John E. Brezak, Jr., *et al.*

Serial No: 09/560,079

Filing Date: April 27, 2000

Examiner: David Yiuk Jung

Art Unit: 2134

Title: SYSTEM AND METHOD FOR MANAGING AND AUTHENTICATING SERVICES VIA SERVICE PRINCIPAL NAMES

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Dear Sir:

Applicants submit this brief in triplicate in connection with an appeal of the above-identified patent application. The Commissioner is authorized to deduct $330.00 for the fee associated with this brief from Deposit Account No. 50-1063 [MSFTP113USA].

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I. Real Party in Interest (37 C.F.R. §1.192(c)(1))

The real party in interest in the present appeal is Microsoft Corporation, the assignee of the present application.

II. Related Appeals and Interferences (37 C.F.R. §1.192(c)(2))

Appellants, appellants' legal representative, and/or the assignee of the present application are not aware of any appeals or interferences which will directly affect, or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims (37 C.F.R. §1.192(c)(3))

Claims 1-25 are pending in the application. The rejection of claims 1-25 is being appealed.

IV. Status of Amendments (37 C.F.R. §1.192(c)(4))

No claim amendments have been entered after the Final Office Action.

V. Summary of Invention (37 C.F.R. §1.192(c)(5))

The present invention relates to systems and methods that authenticate a service, and more specifically to authenticating services between a client and a server by a trusted third party wherein aliasing is employed to reduce management overhead associated with conventional systems. (*See* page 1, lines 5, 6). In general, a request is made by a second party to a first party (*e.g.*, a trusted third party) to authenticate a service *via* an alias. Based on the request, the first party searches list of aliases associated with the service. (*See* page 4, lines 7-10). If a match is found between the first alias and at least one alias in the list, the second party can access the service. (*See* page 4, lines 10-13). In this manner, clients and servers are relieved of managing service names by enabling a trusted third party to authenticate the various service names. (*See* page 4, lines 18-20).

VI. Statement of the Issues (37 C.F.R. §1.192(c)(6))

A. Whether claims 1-25 are unpatentable under 35 U.S.C. §103(a) over Schneier (Applied Cryptography Second Edition: protocols, algorithms and source code in C, 1996) and Pinkert, *et al.* (Operating Systems: concepts, policies and mechanisms, 1989).

VII. Grouping of Claims (37 C.F.R. §1.192(c)(7))

For purposes of this appeal only, the claims are grouped as follows:

Claims 1-25 stand or fall together.

VIII. Argument (37 C.F.R. §1.192(c)(8))

A. Rejection of Claims 1-25 Under 35 U.S.C. §103(a)

Claims 1-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Schneier (Applied Cryptography Second Edition: protocols, algorithms and source code in C, 1996) and Pinkert, *et al.* (Operating Systems: concepts, policies and mechanisms, 1989). Reversal of this rejection is respectfully requested for at least the following reasons.

i. Schneier and Pinkert, et al. individually and in combination, do not teach or suggest the subject invention as recited in claims 1, 9-11 and 16

> To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See* MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *See In re Vaeck,* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Independent claim 1 (and similarly independent claims 9-11 and 16) recites ***a method to authenticate a service by making a request to a first party utilizing a first alias and searching a list of aliases associated with the service... then allowing a second party making the request to access the service if a match is found between the first alias and at least one alias in the list of aliases.***

Schneier does not teach or suggest ***authentication of a service*** to a second party (*e.g.*, client), as recited in the subject claims. In accordance with this feature of the claimed invention, the second party can insure that the service they wish to access is authentic to the system and that "unscrupulous users are prevented from diverting confidential client information." (*See* page 5, lines 20-22). Schneier does not teach such claimed aspects of the subject invention. Instead, Schneier teaches ***authentication of a client*** that wishes to access a particular service. For instance, as disclosed in Schneier, the client requests a ticket for a ticket granting service, the ticket is encrypted, and the encrypted ticket is presented to a server to gain access to a desired service. Such authentication is employed to insure that "nothing is wrong with the ***client's*** credentials." (*See* Schneier, page 567). Thus, Schneier is concerned with *authentication of the client* and ***not authentication of a service***, as recited in the subject claims and thus does not teach or suggest all limitations of the subject claims.

In support for the Examiner's contention that Schneier teaches the aforementioned features of applicants' claimed invention, he asserts that Schneier, at p.567 discloses "wherein the search results for the search match results for the key words are...in which a search match for a first number of the one or more search engines displayed..." As previously noted in the Reply to the Office Action dated September 23, 2003, the Reply to Final Office Action dated February 23, 2004 and again in the Reply to Advisory Action dated May 11, 2004, *this language is not mentioned on the page cited by the Examiner.* Instead, this passage is directed to ***authentication of a client*** and how a client may communicate with a server utilizing Kerberos. Moreover, such language or the like is not found elsewhere in the reference. Regardless of the presence or absence of such language, Schneier does not teach ***authentication of a service*** as in applicants' claimed invention.

The Office Action relies on Pinkert *et al.* to teach or suggest various aspects of the

claimed subject invention. However, in view of the aforementioned deficiencies of Schneier and sincePinkert *et al.* does not make us for such deficiencies, the purported combination of these references would not result in applicants' claimed invention because neither reference teaches or suggests ***authenticating a service*** as recited in the subject claims.

ii. The cited references, Schneier and Pinkert, et al., do not provide proper motivation to be combined in the manner suggested in the Office Action dated February 23, 2004.

Notwithstanding that the cited references do not make obvious the claimed invention, there is no motivation or suggestion to combine the references in the manner suggested. In order to reject claims in an application pursuant to 35 U.S.C. §103, there must be some logical reason apparent from ***positive, concrete evidence*** of record, which justifies a combination of primary and secondary references. *See In re Lakowski* 871 F.2d 115; 10 U.S.P.Q.2D (BNA) 1397 (Fed. Cir. 1989) citing *In re Regel*, 526 F.2d 1399, 1403 n.6, 188 USPQ 136, 140 n.6 (CCPA 1975). A challenger to the validity of a patent cannot pick and choose among the individual elements of assorted prior art references to recreate the claimed invention; the ***challenger has the burden to show some teaching or suggestion*** in the references to support their use in the particular claimed combination. *See Smithkline Diagnostics, Inc. v. Helena Laboratories Corp.*, 859 F.2d 878, 887, 8 USPQ2d 1468, 1475 (Fed. Cir. 1988).

The Examiner contends that motivation to combine the cited references exists by "allowing users to reference the same physical file by different logical names." (*See* Pinkert, *et al.*, p. 205, ¶8). However, merely providing a definition of an alias from Pinkert, *et al.* does not provide the necessary motivation to combine such reference with Schneier. Pinkert *et al.* is non-analogous art to the claimed invention. In general, Pinkert *et al.* is directed to operating systems and corresponding file names - the aliasing taught by Pinkert *et al.* is directed to techniques for naming and organizing files in an operating system and is not related to service authentication as recited in the subject claims. There is no evidence that one skilled in the art of service authentication logically would look to the art of file naming (*e.g.*, aliasing) taught by Pinkert, *et al.*

Moreover, nowhere does Pinkert, *et al.* mention the use of aliasing in conjunction with the third party authentication protocol disclosed in Schneier. Similarly, there is no mention in Schneier of utilizing aliasing with a third party trusted authentication system, as recited in the subject claims. It is readily apparent that the Examiner has not met the requisite burden to show proper motivation to combine Pinkert *et al.* with Schneier. The prior art items themselves must suggest the desirability and thus the obviousness of making the combination without the slightest recourse to the teachings of the patent or application. Without such independent suggestion, the prior art is to be considered merely to be inviting unguided and speculative experimentation, which is not the standard with which obviousness is determined. *Amgen, Inc. v. Chugai Pharmaceutical Co. Ltd.*, 927 F.2d 1200, 18 USPQ2d 1016 (Fed. Cir. 1991); *In re Laskowski*, 871 F.2d 115, 117, 10 USPQ2d 1397, 1398 (Fed. Cir. 1989); *In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1532 (Fed. Cir. 1988); *Hodosh v. Block Drug*, 786 F2f at 1143 n. 5., 229 USPQ at 187 n. 4.; *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1985).

Additionally, the statement by the Examiner that such a modification would allow "users to reference the same physical file by different logical names" is an inadequate rationale for effecting the purported combination. Even though it is possible to try combinations of elements to recreate the subject invention, trying to combine references does not meet the standard pursuant to 35 U.S.C. §103 of nonobviousness. Stating that such a modification would be obvious to try to modify Schneier to teach the subject invention is inadequate to establish a *prima facie* case of nonobviousness. "Obvious to try" is not the standard of 35 U.S.C. §103. A disregard for unobviousness of results of "obvious to try" experiments disregards the "invention as a whole" concept of Section 103. *In re Goodwin*, 576 F.2d 375, 198 USPQ 1 (CCPA 1978). The standard of 35 U.S.C. §103 is *not* that it could be obvious for one skilled in the art to try. *In re Antonie*, 559 F.2d 618, 195 USPQ2d 6 (CCPA 1977). There is usually an element of obviousness to try in any research endeavor...[p]atentability based on that as a test would be contrary to the statute. *In re Tomlinson*, 363 F.2d 928, 150 USPQ 623 (CCPA 1966).

It appears the Examiner is impermissibly employing 20/20 hindsight with applicants' specification as a roadmap to make the purported combination. The rationale

proffered to modify and combine Schneier and Pinkert *et al.* is to achieve benefits identified in applicants' specification, which overcome problems associated with conventional systems and/or methods. Applicants' representative respectfully submits that this is an unacceptable and improper basis for a rejection under 35 U.S.C. §103. In essence, the Examiner is basing the rejection on the assertion that it would have been obvious to do something not suggested in the art because so doing would provide advantages stated in applicants' specification. This sort of rationale has been condemned by the Court of Appeals for the Federal Circuit. *See, for example, Panduit Corp. v. Dennison Manufacturing Co.*, 1 USPQ2d 1593 (Fed. Cir. 1987).

In the Final Office Action, the Examiner states that "as long as [the reference] takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and ***does not include knowledge gleaned only from the applicant's disclosure***, such a reconstruction is proper." However, there is no evidence that utilizing aliasing in relation to service authentication can be gleaned from either reference cited by the Examiner. Rather, the basis for combining the references appears to be premised solely on what is taught by applicants' specification.

The alleged motivation to combine Schneier with Pinkert, *et al.* is merely that Pinkert *et al.* teaches the definition of aliasing - this is not enough. Pinkert *et al.* is limited to naming and organization of files and, as noted *supra*, no positive and concrete basis has been provided for combining Pinkert *et al.* with Schneier absent employment of the teachings of applicants' specification. Thus, the Examiner has not met his burden to show proper motivation to combine the references.

In view of at least the foregoing, it is readily apparent that there is no suggestion or motivation to combine Schneier and Pinkert *et al.*, and even as combined in the manner suggested do not make obvious the subject invention as recited in independent claims 1, 9-11 and 16 (and claims 2-8, 12-15 and 17-25 which respectively depend there from). Accordingly, this rejection should be withdrawn.

IX. Conclusion

For at least the above reasons, the claims currently under consideration are believed to be patentable over the cited references. Accordingly, it is respectfully requested that the rejections of claims 1-25 be reversed.

If any additional fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Respectfully submitted,
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X. Appendix of Claims (37 C.F.R. §1.192(c)(9))

1. A method for facilitating authentication of a service, comprising the steps of:

making a request to a first party for authentication of the service, the request including a first alias;

searching a list of aliases associated with the service;

enabling a second party making the request to access the service if a match is found between the first alias and at least one alias of the list of aliases.

2. The method of claim 1 wherein the first party is a domain controller.

3. The method of claim 2 wherein the domain controller includes a directory service and a Global Catalog Service.

4. The method of claim 1 wherein the authentication of the service is provided *via* Kerberos.

5. The method of claim 1 wherein the aliases are Service Principal Names.

6. The method of claim 5 wherein the Service Principal Names further comprise at least one of a Service Type, an Instance Name, a Port Number, a Service Name and a Domain.

7. The method of claim 5 wherein the Service Principal Names are associated with an account related to a server.

8. The method of claim 7 wherein the step of searching a list of aliases further comprises the steps of:

searching the account for an associated Service Principal name; and

providing name cannonicalization by returning a ticket related to the account.

9. A domain controller for facilitating a client authenticating a server, comprising:

a system for providing a plurality of aliases which the client may employ to authenticate to the server.

10. A system for facilitating a client authenticating a server, comprising:

a domain controller operatively coupled to the client and server, the domain controller providing a plurality of aliases which permit the client to authenticate the server *via* at least one of the aliases.

11. A system for facilitating authentication of a service, comprising:

means for receiving a request for authentication of the service from a client, the request including a first alias;

means for searching a list of aliases associated with the service;

means for enabling the client to access the service if a match is found between the first alias and at least one alias of the list of aliases.

12. The system of claim 11 further including a means for generating an implicit list facilitating automatic creation of Service Principal Names.

13. The system of claim 12 further including a means for constraint checking in order to prevent authentication to an unauthorized server.

14. The system of claim 13 wherein the means for constraint checking includes a Host Name and an attribute.

15. The system of claim 14 wherein the means for constraint checking includes having a means for determining if a server is authentic by matching the Host Name with the attribute.

16. A system for facilitating authentication of a service, comprising:

a domain controller for receiving a request for authentication of the service from a client, the request including a first alias;

wherein the domain controller searches a list of aliases in an account associated with the service;

wherein the domain controller enables the client to access the service *via* a ticket if a match is found in the account between the first alias and at least one alias of the list of aliases.

17. The system of claim 16 wherein the aliases are Service Principal Names.

18. The system of claim 17 wherein the Service Principal Names further comprise at least one of a Service Type, an Instance Name, a Port Number, a Service Name and a Domain.

19. The system of claim 16 further including an implicit list to facilitate automatic creation of Service Principal Names.

20. The system of claim 19 further including constraint checking in order to prevent authentication to an unauthorized server.

21. The system of claim 20 wherein the constraint checking includes a Host Name and an attribute.

22. The system of claim 21 wherein the constraint checking includes determining if a server is authentic by matching the Host Name with the attribute.

23. The system of claim 16 further including a referral service for directing the client to another domain.

24. The system of claim 23 wherein the domain the client is directed to may refer the client to another domain.

25. The system of claim 16 wherein improved security is provided for replicated services by including the name of the replicated service within a Service Principal Name.